

NRO REVIEW COMPLETED

Copy 8 of 9

29 May 1962

OXCART REVIEW

26 April - 29 May 1962

1. Meetings and Contacts

a. On 30 April Dr. Scoville, R.M. Bissell, M. Halaby, John Parangosky, Eugene Kiefer, and [ ] to observe the first official flight of the A-12.

b. 26 April - 29 May. [ ] visited LAC, [ ] P&W Hartford [ ] Attached is a copy of his latest report, dated 25 May 1962.

c. On May 4, 1962, Mr. Kiefer and [ ] visited P&W Florida for a 50 hour test engine parts inspection. See OXC-3480 of 10 May 1962.

d. On 8 May Dr. Scoville, Messrs. Kiefer, [ ] and Parangosky visited P&W [ ] for a look at facilities and program status. This same group, plus [ ] then visited Perkin-Elmer in Norwalk, Conn. After a most unsatisfactory camera development and schedule status report, P&E was instructed to reassess their program and report to Headquarters for a further review of their camera development and delivery program.

e. [ ] visited LAC [ ] to familiarize [ ] with matters related to cover matters, as [ ] is relieving [ ] as Cover Officer for the project.

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25X1A k. On 16 and 17 May [ ] visited [ ]  
25X1A [ ] and was joined on 17 May by Mr. Parangosky. The purpose  
25X1A of the trip was to review the delivery program to insure continuation  
of the maximum level of effort which has become questionable  
due to [ ] interface problems. During the visit it was found  
that the pump situation is improving steadily to the point that an  
"E" configuration pump (designed to operate without oil/fuel additives)  
appears to show promise of meeting temperature requirements.

25X1A h. On 11, 17 and 22-25 May [ ] visited Wilmington,  
Dayton, Milwaukee [ ] in connection with the tank  
25X1A sealant problem. See attached reports.

25X1A k. Thule AFB, Greenland, was visited on 23-25 May by Lt. Col.  
[ ]

25X1A l. [ ] visited Burbank [ ] on 24-25 May to  
25X1A coordinate joint engine airframe matters with [ ] Flight  
test progress and reliability reporting techniques were also discussed.

25X1A m. [ ] visited El Centro NAF on 23 and 25 May where he  
observed [ ] jump from 25,000 feet. All went  
well. See attached report.

2. Status

a. Engine program status:

(1) Engine development test time accumulation for the  
period 26 April through 26 May:

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Total engine time	182 hrs.
Afterburner time	22 hrs.
D-20 engine time	180 hrs.
Mach 1.5 inlet temperature	11 hrs.
Mach 2.0 inlet temperature	8 hrs.
Mach 3.0 inlet temperature	5 hrs.
1900° F turbine time	63 hrs.
Integrated control time	75 hrs.

The above time accumulation reflects a total of six concurrent engine test programs. Two engines have been returned very recently to assembly prematurely as a result of foreign object damage caused by surge investigation in one instance and by M 3.16 inlet temperature in the other. It is not expected that initial limited engine flight suitability will be affected.

Considering the two recent 50 hour tests plus an additional successful 10 hour sea level mission cycle afterburner endurance test with relocated zone II spraybar ring, it is expected that the Mach 2 limited engine flight suitability target for June looks favorable and is now dependent on satisfactory resolution of a recently surfaced problem involving thrust discontinuity.

(2) Delivery engine status:

<u>Engine Number</u>	<u>Estimated Shipment</u>	<u>Scheduled Shipment</u>
YD-1	31 May	30 June
YD-2	11 June	31 July
YD-3	6 July	31 July
YD-4	3 Aug	31 Aug

(3) Hydraulic Pump:

16 sixty hour tests have been initiated since 15 March. 9 of these 16 have been successfully completed. 4 of the 9 successful tests were run at 350° F fuel without the oil additive. Two of the four @ 350° fuel without oil went 150 hours. One of these two 150 hour tests @ 350° fuel without oil included the AR additive and a 750° ambient environment.

Because of hardware lead time, pumps for the first few delivery engines will require the 3% oil additive.

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(4) Engine Controls:

Mach 3.2 bench mission cycle endurance time has increased as follows:

	Hours on 8 May	Hours on 28 May	Hours Increase
Main Control	83	175	92
Afterburner Control	200	302	102
Exhaust Nozzle Control	50	71	21

The 92 hours main control time represents an informal hot Y test on one unit. Post test calibration and parts inspection satisfactory.

60 of the 102 hours afterburner control time represents a YPFRT on one unit which revealed a sticking pump controller piston with all other parts satisfactory. 42 of the 102 hours represents a second YPFRT still in process and on schedule.

A YPFRT on the main control system including exhaust nozzle control is scheduled to start 30 May.

a. Fuel Tank Sealant Status:

See attached reports by [Redacted] dated 26 May 1962 and OXC-3546, dated 28 May 1962.

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3. Subjects for Discussion

a. Engine/controls progress [Redacted]

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b. [Redacted] briefing (Dr. Scoville).

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c. Wires between [Redacted] regarding TALL KING [Redacted].

d. Contrails data (Parangosky).

e. Perkin-Elmer meeting (Parangosky).

SIGNED

Atts: As stated

JOHN PARANGOSKY  
Chief, Development Branch  
Development Projects Division

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